```
FFFFFFFFFFFFFFF     000000000     RRRRRRRRRRR     RRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
FFFFFFFFFFFFFFF     000000000     RRRRRRRRRRR     RRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
FFFFFFFFFFFFFFF     000000000     RRRRRRRRRRR     RRRRRRRRRRR     TTTTTTTTTTTTTTT  LLL
FFF              000       000     RRR     RRR     RRR     RRR          TTT         LLL
FFF              000       000     RRR     RRR     RRR     RRR          TTT         LLL
FFF              000       000     RRR     RRR     RRR     RRR          TTT         LLL
FFF              000       000     RRR     RRR     RRR     RRR          TTT         LLL
FFF              000       000     RRR     RRR     RRR     RRR          TTT         LLL
FFFFFFFFFFF      000       000     RRRRRRRRRRR     RRRRRRRRRRR          TTT         LLL
FFFFFFFFFFF      000       000     RRRRRRRRRRR     RRRRRRRRRRR          TTT         LLL
FFFFFFFFFFF      000       000     RRRRRRRRRRR     RRRRRRRRRRR          TTT         LLL
FFF              000       000     RRR  RRR        RRR  RRR             TTT         LLL
FFF              000       000     RRR   RRR       RRR   RRR            TTT         LLL
FFF              000       000     RRR    RRR      RRR    RRR           TTT         LLL
FFF              000       000     RRR     RRR     RRR     RRR          TTT         LLL
FFF              000       000     RRR     RRR     RRR     RRR          TTT         LLL
FFF                000000000       RRR      RRR    RRR      RRR         TTT         LLLLLLLLLLLLLLL
FFF                000000000       RRR       RRR   RRR       RRR        TTT         LLLLLLLLLLLLLLL
FFF                000000000       RRR        RRR  RRR        RRR       TTT         LLLLLLLLLLLLLLL
```

FILEID**FORSTOP

```
FFFFFFFFF      000000      RRRRRRRR      SSSSSSSS   TTTTTTTTTT      000000      PPPPPPPP
FFFFFFFFF      000000      RRRRRRRR      SSSSSSSS   TTTTTTTTTT      000000      PPPPPPPP
FF            00    00     RR    RR   SS                TT        00    00     PP      PP
FF            00    00     RR    RR   SS                TT        00    00     PP      PP
FF            00    00     RR    RR   SS                TT        00    00     PP      PP
FFFFFFF       00    00     RRRRRRRR      SSSSSS          TT        00    00     PPPPPPPP
FFFFFFF       00    00     RRRRRRRR      SSSSSS          TT        00    00     PPPPPPPP
FF            00    00     RR  RR                SS      TT        00    00     PP
FF            00    00     RR   RR               SS      TT        00    00     PP
FF            00    00     RR    RR              SS      TT        00    00     PP
FF            00    00     RR     RR             SS      TT        00    00     PP
FF             000000      RR      RR   SSSSSSSS         TT         000000      PP
FF             000000      RR      RR   SSSSSSSS         TT         000000      PP


LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II         SSSSSS
LL              II         SSSSSS
LL              II               SS
LL              II               SS
LL              II               SS
LL              II               SS
LLLLLLLLL     IIIIII      SSSSSSSS
LLLLLLLLL     IIIIII      SSSSSSSS
```

....
....
....
....
....

```
    1   0001   0 MODULE FOR$STOP (        ! FORTRAN STOP statement
    2   0002   0           IDENT = '1-004' ! File: FORSTOP.B32 Edit:DGP1004
    3   0003   0                   ) =
    4   0004   1 BEGIN
    5   0005   1
    6   0006   1 !
    7   0007   1 !******************************************************************
    8   0008   1 !*                                                                *
    9   0009   1 !*   COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                      *
   10   0010   1 !*   DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.       *
   11   0011   1 !*   ALL RIGHTS RESERVED.                                         *
   12   0012   1 !*                                                                *
   13   0013   1 !*   THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED  *
   14   0014   1 !*   ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE  *
   15   0015   1 !*   INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER  *
   16   0016   1 !*   COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY  *
   17   0017   1 !*   OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY  *
   18   0018   1 !*   TRANSFERRED.                                                 *
   19   0019   1 !*                                                                *
   20   0020   1 !*   THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE  *
   21   0021   1 !*   AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT  *
   22   0022   1 !*   CORPORATION.                                                 *
   23   0023   1 !*                                                                *
   24   0024   1 !*   DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS  *
   25   0025   1 !*   SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.      *
   26   0026   1 !*                                                                *
   27   0027   1 !*                                                                *
   28   0028   1 !******************************************************************
   29   0029   1 !
   30   0030   1
   31   0031   1 !++
   32   0032   1 ! FACILITY:  FORTRAN Support Library
   33   0033   1 !
   34   0034   1 ! ABSTRACT:
   35   0035   1 !
   36   0036   1 !       Output optional string and suspend process
   37   0037   1 !
   38   0038   1 ! ENVIRONMENT:  User Mode - AST re-entrant
   39   0039   1 !
   40   0040   1 ! AUTHOR:  Thomas N. Hastings, CREATION DATE:  8-Aug-1977
   41   0041   1 !
   42   0042   1 ! MODIFIED BY:
   43   0043   1 !
   44   0044   1 !       Thomas N. Hastings, 8-Aug-1977: VERSION 0
   45   0045   1 ! 01     - original
   46   0046   1 ! 0-3    - Print FORTRAN STOP if no arg.  TNH 13-Dec-77
   47   0047   1 ! 0-04   - Change to STARLET library.  DGP 20-Apr-78
   48   0048   1 ! 0-05   - Change REQUIRE files for VAX system build.  DGP 28-Apr-78
   49   0049   1 ! 0-06   - Change STARLET to RTLSTARLE to avoid conflicts.  DGP 1-May-78
   50   0050   1 ! 0-07   - Make PIC.  TNH 30-June-78
   51   0051   1 ! 0-08   - Change file name to FORSTOP.B32, and change the name of the
   52   0052   1 !            REQUIRE file similarly.  JBS 14-NOV-78
   53   0053   1 ! 1-001  - Update version number and copyright notice.  JBS 16-NOV-78
   54   0054   1 ! 1-002  - Return a value to keep BLISS compiler happy.  JBS 27-NOV-78
   55   0055   1 ! 1-003  - Change REQUIRE file names from FOR... to OTS...  JSB 06-DEC-78
   56   0056   1 ! 1-004  - Move ACTUALCOUNT into body of routine and initialize the class
   57   0057   1 !            and d_type of default descriptor.  DGP 28-Oct-1981
```

; 58   0058 1 !--

```
   60        0059  1 !
   61        0060  1 ! TABLE OF CONTENTS:
   62        0061  1 !
   63        0062  1
   64        0063  1 FORWARD ROUTINE
   65        0064  1         FOR$STOP;                    ! STOP statement
   66        0065  1
   67        0066  1 !
   68        0067  1 ! INCLUDE FILES:
   69        0068  1 !
   70        0069  1 REQUIRE 'RTLIN:OTSMAC';              ! Define macros
   71        0263  1 REQUIRE 'RTLIN:RTLPSECT';            ! Define DECLARE_PSECTS macro
   72        0358  1 LIBRARY 'RTLSTARLE';                 ! STARLET library for macros and symbols
   73        0359  1 !
   74        0360  1 ! MACROS:
   75        0361  1 !
   76        0362  1
   77        0363  1 !
   78        0364  1 ! EQUATED SYMBOLS:
   79        0365  1 !
   80        0366  1
   81        0367  1 !
   82        0368  1 ! PSECT DECLARATIONS:
   83        0369  1 !
   84        0370  1
   85        0371  1         DECLARE_PSECTS (FOR);                ! declare PSECTs for FOR$ facility
   86        0372  1
   87        0373  1 !
   88        0374  1 ! OWN STORAGE:
   89        0375  1 !
   90        0376  1
   91        0377  1 !
   92        0378  1 ! EXTERNAL REFERENCES:
   93        0379  1 !
   94        0380  1
   95        0381  1 EXTERNAL ROUTINE
   96        0382  1         LIB$PUT_OUTPUT: NOVALUE ADDRESSING_MODE(GENERAL); ! Output on device $OUTPUT
```

FOR$STOP
1-004

G 2
16-Sep-1984 00:45:46   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:32:45   [FORRTL.SRC]FORSTOP.B32;1

Page 4
      (3)

FOR
1-0

```
  98   0383  1 GLOBAL ROUTINE FOR$STOP (        ! FORTRAN STOP statement
  99   0384  1         MESSAGE_DSC_ADR)         ! Adr. of optional string descriptor to output
 100   0385  1         =                        ! Value returned is $SUSPND  completion code
 101   0386  1 !++
 102   0387  1 ! FUNCTIONAL DESCRIPTION:
 103   0388  1 !
 104   0389  1 !     FORTRAN STOP outputs an optional string on device $OUTPUT
 105   0390  1 !     and calls $EXIT with a success completion status.
 106   0391  1 !     If no argument is present, 'FORTRAN STOP' is printed.
 107   0392  1 !
 108   0393  1 ! FORMAL PARAMETERS:
 109   0394  1 !
 110   0395  1 !     message_dsc_adr.rt.dx               ! Adr. of optional string descriptor to output
 111   0396  1 !
 112   0397  1 ! IMPLICIT INPUTS:
 113   0398  1 !
 114   0399  1 !     Logical device assignment for $OUTPUT (see LIB$PUT_OUTPUT)
 115   0400  1 !
 116   0401  1 ! IMPLICIT OUTPUTS:
 117   0402  1 !
 118   0403  1 !     NONE
 119   0404  1 !
 120   0405  1 ! COMPLETION CODES:
 121   0406  1 !
 122   0407  1 !     NONE
 123   0408  1 !
 124   0409  1 ! SIDE EFFECTS:
 125   0410  1 !
 126   0411  1 !     Outputs message on device $OUTPUT and calls $EXIT with success code 1.
 127   0412  1 !
 128   0413  1 !--
 129   0414  1
 130   0415  2    BEGIN
 131   0416  2
 132   0417  2    BUILTIN
 133   0418  2       ACTUALCOUNT;                ! Return the number of actual parameters
 134   0419  2    LOCAL
 135   0420  2       DESCR: DSC$DESCRIPTOR;           ! descriptor (needed to be PIC)
 136   0421  2
 137   0422  2    !+
 138   0423  2    ! Output optional message on device $OUTPUT, if arg present.
 139   0424  2    !-
 140   0425  2
 141   0426  2    IF ACTUALCOUNT() GEQ 1
 142   0427  2    THEN
 143   0428  2        LIB$PUT_OUTPUT (.MESSAGE_DSC_ADR)
 144   0429  2    ELSE
 145   0430  3        BEGIN
 146   0431  3        DESCR[DSC$B_CLASS] = DSC$K_CLASS_S;
 147   0432  3        DESCR[DSC$B_DTYPE] = DSC$K_DTYPE_T;
 148   0433  3        DESCR[DSC$W_LENGTH] = 12;
 149   0434  3        DESCR[DSC$A_POINTER] = UPLIT ('FORTRAN STOP');
 150   0435  3        LIB$PUT_OUTPUT (DESCR);
 151   0436  2        END;
 152   0437  2
 153   0438  2
 154   0439  2    !+
```

```
; 155      0440 2    ! EXIT with success completion status code of 1.
; 156      0441 2    !-
; 157      0442 2
; 158      0443 3    $EXIT (CODE=1)
; 159      0444 1    END;                        ! End of routine FOR$STOP

                                                 .TITLE  FOR$STOP
                                                 .IDENT  \1-004\

                                                 .PSECT  _FOR$CODE,NOWRT,  SHR,  PIC,2

        50 4F 54 53 20 4E 41 52 54 52 4F 46 00000 P.AAA:  .ASCII  \FORTRAN STOP\

                                                 .EXTRN  LIB$PUT_OUTPUT, SYS$EXIT

                                0000 00000       .ENTRY  FOR$STOP, Save nothing       ; 0383
                        5E    08 C2 00002         SUBL2   #8, SP                      ; 0426
                              6C 95 00005         TSTB    (AP)
                              05 13 00007         BEQL    1$
                     04 AC DD 00009               PUSHL   MESSAGE_DSC_ADR             ; 0428
                        0E 11 0000C               BRB     2$
              6E 010E000C 8F DO 0000E 1$:         MOVL    #17694732, DESCR           ; 0433
                 04 AE    DC AF 9E 00015          MOVAB   P.AAA, DESCR+4             ; 0434
                        5E DD 0001A               PUSHL   SP                         ; 0435
        00000000G 00    01 FB 0001C 2$:           CALLS   #1, LIB$PUT_OUTPUT
                        01 DD 00023               PUSHL   #1                         ; 0443
        00000000G 00    01 FB 00025               CALLS   #1, SYS$EXIT
                           04 0002C               RET                                ; 0444

; Routine Size:  45 bytes,   Routine Base: _FOR$CODE + 000C

; 160      0445 1 END                              ! End of module FOR$STOP
; 161      0446 0 ELUDOM
```

;
;   PSECT SUMMARY
;
;   Name   Bytes   Attributes
;
; _FOR$CODE   57 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)
;
;
;   Library Statistics
;
;   -------- Symbols --------   Pages   Processing
;   File   Total   Loaded   Percent   Mapped   Time
;
; _255DUA28:[SYSLIB]STARLET.L32;1   9776   8   0   581   00:01.0

```
;                         COMMAND QUALIFIERS

;      BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS$:FORSTOP/OBJ=OBJ$:FORSTOP MSRC$:FORSTOP/UPDATE=(ENH$:FORSTOP)

; Size:         45 code + 12 data bytes
; Run Time:        00:04.4
; Elapsed Time:    00:18.5
; Lines/CPU Min:    6054
; Lexemes/CPU-Min: 22656
; Memory Used:  49 pages
; Compilation Complete
```